Claims:

1. A method of optically interlocking a plug and receptacle combination, such method comprising the steps of:

disposing an optical source and receiver in a sidewall of the receptacle with an axis of transmission from the optical source to the receiver directed into and across a plug space of the receptacle substantially perpendicular to an axis of insertion of the plug; and

activating the optical interlock when an optical signal from the optical source is detected by the optical receiver.

2. The method of optically interlocking a plug and receptacle combination as in claim 1 further comprising defining the optical source as a light emitting diode.

3. The method of optically interlocking a plug and receptacle combination as in claim 2 further comprising defining the optical receiver as a photodiode.

4. The method of optically interlocking a plug and receptacle combination as in claim 3 further comprising disposing the receptacle on a printed circuit board wherein the printed circuit board forms a sidewall surface of the receptacle.

5. The method of optically interlocking a plug and receptacle combination as in claim 4 further comprising defining the optical interlock as the combination of a controller and optical transmitter disconnect.

6. The method of optically interlocking a plug and receptacle combination as in claim 5 further comprising defining the plug as an optical connector for holding a plurality of optical fibers and aligning the plurality of optical fibers to an optical transmitter.

7. The method of optically interlocking a plug and receptacle combination as in claim 6 further comprising interrupting the optical signal to the photodiode with the optical connector.

8. The method of optically interlocking a plug and receptacle combination as in claim 7 wherein the step of activating the optical interlock further comprises reflecting the optical signal off a reflective surface of the receptacle and directing the optical signal to the photodiode.

9. An apparatus for optically interlocking a plug and receptacle combination, such apparatus comprising:

the plug and receptacle; and

an optical source and receiver disposed in a sidewall of the receptacle with an axis of transmission from the optical source to the receiver directed into and across a plug space of the receptacle substantially perpendicular to an axis of insertion of the plug.

10. The apparatus for optically interlocking a plug and receptacle combination as in claim 9 wherein the optical source is further defined as a light emitting diode.

11. The apparatus for optically interlocking a plug and receptacle combination as in claim 10 wherein the optical receiver is further defined as a photodiode.

12. The apparatus for optically interlocking a plug and receptacle combination as in claim 11 further comprising the receptacle disposed on a printed circuit board wherein the printed circuit board forms a sidewall surface of the receptacle.

13. The apparatus for optically interlocking a plug and receptacle combination as in claim 12 wherein the optical interlock is further defined as a combination of a controller and optical transmitter disconnect.

14. The apparatus for optically interlocking a plug and receptacle combination as in claim 13 wherein the plug is further defined as an optical connector for holding a plurality of optical fibers.

15. The apparatus for optically interlocking a plug and receptacle combination as in claim 14 wherein the optical connector when inserted in the receptacle interrupts the optical signal to the photodiode.

16. The apparatus for optically interlocking a plug and receptacle combination as in claim 15 further comprising a reflective surface of the receptacle for reflecting and directing the optical signal to the photodiode.